Reviewer’s report

Title: Prolonged Versus Brief Balloon Inflation During Arterial Angioplasty for De-Novo Atherosclerotic Disease: Protocol for a Systematic Review

Version: 0  Date: 10 Nov 2018

Reviewer: Srikanth Vallurupalli

Reviewer's report:

Rockley et al present the protocol for a systematic review of prolonged balloon inflation for arterial angioplasty in different arterial beds.

Angioplasty alone remains an important treatment option in peripheral arterial disease while it is no longer employed without stent implantation in coronary circulation.

Sufficient controversy exists to warrant a systematic review. The protocol is overall well written but can be improved in the following manner:

1. Angioplasty alone is rarely performed in native coronary artery disease; it is routinely followed by stent implantation. Thus, studies of angioplasty alone in coronary circulation are likely to be older. As one can expect, differences in engineering characteristics of earlier generation balloons may provide a residual stenosis/dissection rate that may not be relevant in the modern era. Similarly differences in medical therapy may effect clinical outcomes. It would be best to analyze and report these outcomes in two eras - say, prior to year 2000 and on or after 2000.

2. Similarly, the authors will discover studies in the pre-stent coronary literature using perfusion balloon catheters (which allowed very prolonged inflations by providing perfusion in the distal coronary bed). These catheters are no longer used on coronary angioplasty and these studies should be analyzed separately.

3. Will studies of inflation time in in-stent restenosis be excluded?

4. Reference 7 (Hovasse et al) studied inflation time in stent balloon implantation and not angioplasty. This should be removed since the objective is angioplasty balloon inflation time; not stent balloon inflation time.

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests
**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

'I declare that I have no competing interests'

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Were you mentored through this peer review?

No